Subject Matter Code: C-24a SSC Water Effect Ratios

Comment ID: CTR-003-001
Comment Author: City of Riverside
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/22/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES

Comment: 1) The placement of the WER in the equation for the calculation of criteria is an excellent idea which, given affordable implementation methods, should better tailor the criteria to the site. We would, however, appreciate clearer definition as to how this is to be implemented. Will the EPA approve WER study plans and results or is the State the lead agency? Do WER's need to be placed in basin plans or is this similar to total to dissolved ratios which are permitting issues versus objective setting issues?

Response to: CTR-003-001

The rule promulgates a default WER of 1. The rule states that if other than a WER of 1 will be used, it must be developed in accordance with EPA's WER guidance or the State's methodology, after that methodology has been adopted as part of the State's water quality planning process and approved by EPA. WERs developed under one of these processes are not subject to further EPA review and approval.

WERs may be used on a water body basis for a particular pollutant or as part of a permit for an individual discharger for a specific pollutant. EPA encourages the State (and dischargers) to develop and use WERs on a water body basis, since this approach is technically sound, and efficient use of resources, and allowable for the NPDES permitting authority. WERs developed on a water body basis should be included and adopted in the appropriate Regional Water Quality Control Board Basin Plan. WERs that are developed on a permit basis are subject to the NPDES permit approval process.

Comment ID: CTR-004-004b
Comment Author: South Bayside System Authority
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES G-05
C-22
C-09

Comment: Despite the problems addressed above there are provisions of the CTR that SBSA supports,

including:

* EPA's policies and guidance regarding the use of mixing zones and dilution

* Use of water effects ratios (WERs) for determining site specific criteria

* Inclusion of metals criteria expressed as dissolved rather than total recoverable

* Allowing permit writers the use of any of the methods in EPA's guidance document on the use of translators

Response to: CTR-004-004b

EPA acknowledges the commenter's support.

Comment ID: CTR-005-003b
Comment Author: Novato Sanitary District
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/23/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES C-22
C-01a
G-09
G-05
G-04

Comment: 2. The following provisions of the rule are supported: (1) adoption of metals criteria as dissolved concentrations; (2) expression of the metals criteria as a function of the water-effect ratio; (3) adoption of the proposed new human health criterion for mercury; and (4) the Preamble discussions regarding metals translators, mixing zones, and interim permit limits.

Response to: CTR-005-003b

EPA acknowledges the commenter's support.

Comment ID: CTR-017-002b
Comment Author: Santa Ana River Discharger Ass
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:

Attachments? Y
CROSS REFERENCES C-22

Comment: Because the California Toxics Rule uses the same approach as the UAA in setting water quality objectives for cadmium and copper, SARDA strongly supports the CTR objectives for those metals. We also agree with EPA's written statements acknowledging the binding character of organic carbon and the role it plays in rendering heavy metals non-toxic. We enthusiastically endorse the agency's decision to include Water Effects Ratio as a formal factor to be considered when formulating water quality objectives. It will do much to adjust national criteria to local conditions.

Response to: CTR-017-002b

EPA acknowledges the commenter's support.

Comment ID: CTR-020-005
Comment Author: City of Stockton
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES

Comment: II. Use of New Scientific Information

The City acknowledges and supports EPA's update of several water quality criteria including those for mercury, cadmium and arsenic. While a number of criteria were updated to reflect current scientific information, there are a few notable exceptions. The following briefly addresses the key updates and omissions that should be addressed in the final publication of this rule.

2. Water Effects Ratio The preamble explains that the intent of the metals criteria is to control the bioavailable fraction of the metal. Because there is no reliable analytical procedure to measure the bioavailable fraction, most acute and chronic metals criteria are now applied as dissolved criteria and a water effects ratio ("WER") is included as part of the criteria to properly adjust the analytical measurement to reflect the bioavailable fraction. Contrary to the statement that the metals criteria are only intended to address bioavailable metals, the preamble states that acceptance of a WER study is discretionary. This is inappropriate and must be amended in the final rule publication. EPA should not be suggesting that Regional Boards may ignore relevant scientific information.

EPA has also dictated use of the Agency's Interim Guidance on the Determination and Use of Water-Effect Ratios (the "WER Guidance") which is very conservative and costly to follow. Moreover, WER guidance is not designed to address short term events such as storm water discharges. Given that the duration of the tests required to be used greatly exceeds the duration of storm water events, it is apparent that the WER guidance should not be applied to these conditions without considerable modification. The recent Society for Environmental Toxicology and Chemistry ("SETAC") evaluation of EPA metals criteria and implementation policies (entitled "Reassessment of Metals Criteria for Aquatic

Life Protection" [1996]) recommends that whole effluent bioassays using metal sensitive organisms be used to determine the appropriateness of applying EPA's metal criteria to derive stringent effluent limitations. The use of complex and expensive WER tests is not necessary as the use of metal sensitive organisms (such as daphnids), which were originally used to calculate EPA's criteria, will reliably assess whether or not the metals present in the sample are in a bioavailable form. Senior EPA officials were involved in preparing the SETAC recommendation, and the publication is intended to reflect to consensus of the nationally recognized experts on this subject. The Agency has in the past relied upon these same experts in updating the EPA's metals criteria (e.g., the January 1993, EPA-sponsored scientific workshop on the development and implementation of metals criteria in Annapolis, Maryland [the "Annapolis Conference"]).

Because of the excessive cost and time necessary to conduct detailed WER tests in accordance with EPA's published guidance, more simplified and appropriate procedures need to be established. The metals criteria should include a screening procedure which will allow the use of metal sensitive organisms to assess whether or not the metal is in a bioavailable form. If the metal is not bioavailable, then the permitting authority should not establish limitations based upon EPA's criteria.

Response to: CTR-020-005

EPA does not mean to suggest in its language concerning WERs, that California Regional Water Quality Control Boards ignore relevant scientific information. Rather, EPA's intent is simply to clarify that the State has the authority to approve or disapprove site-specific determinations of WER values, derived with methodology approved by EPA.

Additionally, EPA does not mean to suggest that the Agency's "Interim Guidance on the Determination and Use of Water-Effect Ratios" is the only available methodology for determining WERS, as discussed further in the response to CTR-020-006. See also the response to CTR-003-001 for discussion of the general approach for implementation. The commenter wants a simpler EPA WER guidance but does not suggest how to do this and why it would be scientifically defensible.

Comment ID: CTR-020-006
Comment Author: City of Stockton
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES

Comment: II. Use of New Scientific Information The City acknowledges and support EPA's update of several water quality criteria including those for mercury, cadmium and arsenic. Whle a number of criteria were updated to reflect current scientific information, there are a few notable exceptions. The following briefly addresses the key updates and omission that should be addressed in the final publication of this rule.

(a) Water Effect Ratio Approach is Mathematically Flawed

As part of the CTR, EPA has required that the Agency's February 22, 1994 water effects ratio procedure be used to appropriately adjust the dissolved metals criteria to reflect the bioavailable fraction. See, WER Guidance. Since the issuance of that document, EPA has prepared an internal evaluation of the reasonableness of the WER Guidance (Delos: "Probabilistic Analysis of the Level of Protection Provided by the Interim Guidance on Determination of Water Effect Ratios" [March 1994]). That analysis found:

...the Guidance procedures tend to produce a lower WER than the unbiased WER... the option favored in the February 22 cover memo to the Guidance is particularly biased (by a factor of 2-4)...

Thus, it is apparent that EPA is aware that the published WER Guidance is flawed and will lead to calculation of unnecessarily restrictive limitations under the most common circumstances where the procedure is applied (low dilution receiving waters). Given this information, it is clearly inappropriate for EPA to mandate the use of the 1994 WER Guidance as the basis for determining all WERs under the CTR.

In addition to those issues identified in EPA's internal review, the procedures outlined in the WER Guidance contain a major, conceptual, technical error that will lead to routine miscalculation of the WER. This error was first brought to EPA's attention in September 1992 by Dr. Herb Allen, one of the nation's leading experts on metals speciation (Exhibit 1).

The basic technical oversight of the WER Guidance is that organometallic complexing manifests itself as a non-linear titration, not a linear ratio. This mode of action was verified decades ago by many researchers. On behalf of EPA, DiToro also verified this phenomenon during EPA's sediment criteria research, and it is the underlying principle in using acid volatile sulfide levels as the indicator of when metals may exhibit toxicity. As discussed in Dr. Allen's most recent analysis (Exhibit 2), metals will not exhibit toxicity where the amount of binding sites is stoichiometrically in excess of the available metal. This is demonstrated by Figure 6 contained in Exhibit 2 for a range of ligand concentrations. Both the acute and chronic criteria will be increased by a specific fixed amount, not a ratio. Thus, the proper way to account for metals inactivation measured by a WER procedure is arithmetically, not multiplicatively.

The error in the appropriate adjustment to the criteria increases as the LC50 used to calculate the WER becomes increasingly greater than the chronic criteria that is being adjusted by the WER. Given that the chronic criteria is always less than the LC50 used to adjust the criteria, EPA's WER procedure will always produce an inappropriately low adjustment factor. The following examples illustrate the magnitude of the error that may occur by using a multiplicative rather than additive approach. The first example is typical of EPA's copper criteria. Where the laboratory derived LC50 is 20 ug/l and the effluent influenced LC50 is 60 ug/l, a WER of three (3) would be calculated. These same data verify that a 40 ug/l copper binding capacity is exhibited by the effluent influenced sample.

Under EPA's procedure, a chronic criteria adjustment to 18 ug/l would occur (assuming 6 ug/l chronic criteria) although the actual chronic endpoint is 46 ug/l based on the titration effect. Thus, EPA's approach is in error by a factor of 2.55 or 155 percent. The criteria calculation error becomes even more dramatic as the acute/chronic ("A/C") ratio is increased. For pollutants such as lead with a high A/C ratio (about 50), the error would easily be a factor of 50 because acute tests are used to calculate the WER. The solution to the problem is straightforward: EPA should inform the public that the binding capability of the mixture should be determined arithmetically (one may geometrically average the results consistent with the acute and chronic criteria development) and add this to the chronic test result to produce the proper instream criteria.

Finally, the WER Guidance is in error in its expensive requirement that WERs be conducted for a series of dilutions under the concern that the WER may decrease more rapidly than the dilution increases. As demonstrated by Dr. Allen in Figure 3, Exhibit 2, organometallic binding is not linear. Binding does not decrease more rapidly or even as rapidly as dilution even for binding agents with relatively low stability constants. Thus, if the pollutant is demonstrated to be non-toxic at low dilution, one may fully expect the pollutant to remain non-toxic as dilution increases. Recognition of this phenomenon can greatly simplify the WER procedures and reduce the exorbitant costs of running all the tests outlined in the WER Guidance.

Based upon these and other concerns, the proposed rule should delete the requirement to utilize the WER Guidance for all WER analyses. As requested and supported by the available technical information, the CTR should allow for use of simplified approached to adjusting the proposed metals criteria.

Response to: CTR-020-006

EPA disagrees that it has mandated or required the of use of the Agency's "Interim Guidance on the Determination and Use of Water-Effect Ratios". As an alternative to following this guidance the rule specifically provides the option of using "other scientifically defensible methods adopted by the State as part of its water quality standards program and approved by EPA."

The commenter recommends use of what could be called a "water-effect difference" (WED), although this particular terminology is not used in the comment. If the test species exhibited effects at concentrations near the criterion, the WED would yield the same result as the WER. If the test species exhibited effects at concentrations significantly above than the criterion, then the WED would yield a different result than the WER. Under certain conditions (e.g., metals interacting with strong binding agents), the WED calculation will yield an accurate result, while the WER will yield an over-protective result. Under other conditions (e.g., metals interacting with weak ligands) the WED will yield an under-protective result, while the WER will yield an accurate result. Analysis of the behavior of EPA's current guidance indicates that it often tends to yield conservative results.

With regard to the issue of the complexity and expense involved in of the WER procedure, EPA has been cooperating with states and dischargers who are experimenting with simplified procedures that yield the essential information using fewer samples ([Date] letter from Evelyn S. MacKnight, EPA Region 3, to James Newbold, Pennsylvania Dept. of Environ. Protection). Furthermore, EPA is developing a biotic ligand modeling approach that will determine the appropriate site-specific criteria adjustment solely from site-specific chemical measurements. Because the state of the science is moving forward in this area, EPA has provided for the use of alternative procedures, and anticipates that future developments will yield procedural improvements approvable under the rule. EPA believes that the current guidance on WERs yields dependable results, but that the upcoming biotic ligand model will simultaneously improve the accuracy of site-specific criteria adjustments (eliminating the above described WER versus WED issue) and simplify their derivation. EPA thus believes that the rule's provisions, coupled with its ongoing scientific development efforts, are directly responsive to the issues raised in the comment.

Comment ID: CTR-021-002b
Comment Author: LeBoeuf, Lamb, Green & MacRae
Document Type: Local Government
State of Origin: CA
Represented Org: City of Sunnyvale

Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-021 incorporates by reference letter CTR-035
Attachments? Y
CROSS REFERENCES G-04
C-22
K-01
G-05
G-02

Comment: Sunnyvale is very supportive of many fine concepts advanced in the proposed CTR, and we join with CASA/Tri-TAC in complimenting the Agency on its proposed positions with regard to such matters as: (a) the use of interim effluent limitations in NPDES permits during the pendency of TMDL and other special studies; (b) the allowance of water effects ratios in adjusting the criteria for metals without the necessity for additional rulemaking to establish site-specific objectives; (c) the use of the dissolved state for the metals criteria; (d) the use of cooperative, intergovernmental, and stakeholder-involved approaches towards the development of TMDLs;(e) the allowance of dilution for both chronic and acute pollutants; and (f) the allowance of compliance schedules in NPDES permits.

Response to: CTR-021-002b

EPA acknowledges the commenter's support.

Comment ID: CTR-027-012b
Comment Author: California SWQTF
Document Type: Storm Water Auth.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-027 incorporates by reference letters CTR-001, CTR-036 and CTR-040
Attachments? N
CROSS REFERENCES C-22
C-01a
G-09
G-05

Comment: PROVISIONS OF THE PROPOSED RULE WE SUPPORT

Not withstanding the above comments, we believe there are certain elements of the proposed rule with respect to establishing water quality standards that we can support:

* Metal criteria expressed in the dissolved fraction rather than expressed in the total recoverable fraction.

* Metal criteria that are developed as a function of the water-effect-ratio (WER).

* The current proposed human health criterion for mercury.

* The current preamble language regarding metal translators and mixing zones.

We believe the above provisions provide a more acceptable, scientific approach to the water quality-based pollution control approach. We recommend these provisions of the current rule remain as proposed.

Response to: CTR-027-012b

EPA acknowledges the commenter's support.

Comment ID: CTR-032-002d
Comment Author: Las Gallinas Val. Sanitry Dist
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-032 incorporates by reference letter CTR-035
Attachments? N
CROSS REFERENCES G-01
C-22
G-09
C-24
K
G-04
G-05
G-02

Comment: Regulatory Flexibility and Relief

The District supports EPA's use of "sound science" and current data in developing the proposed criteria in the California Toxics Rule (CTR). The District strongly supports language in the Preamble that references and endorses recommendations of the State Task Forces including use in permitting of:

* reasonable potential analyses * dissolved metals criteria * translators * water effects ratios * site specific objectives * innovative TMDL processes such as effluent trading * performance based interim limits * chronic and acute mixing zones, and * compliance schedules in NPDES permits.

Response to: CTR-032-002d

EPA acknowledges the commenter's support.

Comment ID: CTR-034-009
Comment Author: SCAP
Document Type: Trade Org./Assoc.
State of Origin: CA

Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-034 incorporates by reference letter CTR-035
Attachments? N
CROSS REFERENCES

Comment: * SCAP also supports EPA's proposal to include in the proposed rule a default water effects ratio (WER) value of 1.0 unless a site-specific WER is developed, and EPA's policy of allowing the approval of site-specific WERs without a formal rulemaking process to modify the CTR. We also agree with EPA'S policy to allow the development of site-specific WERs in accordance with EPA's technical guidance on WERs or using other scientifically defensible methods.

Response to: CTR-034-009

EPA acknowledges the commenter's support.

Comment ID: CTR-035-002h
Comment Author: Tri-TAC/CASA
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES C-22
C-01a
C-08a
G-05
G-04
G-09
K-01

Comment: Second, we commend EPA for its inclusion in the CTR of several innovative and flexible regulatory approaches, such as metals criteria expressed as dissolved rather than total recoverable concentrations, and the revised human health criterion for mercury. In addition, in light of the issues surrounding the human health criteria for arsenic we support EPA's decision not to promulgate human health criteria at this time. With respect to implementation issues discussed in the Preamble, we support EPA's policies and guidance regarding the application of mixing zones and dilution credits. the use of interim permit limits while Total Maximum Daily Loads (TMDLs) and other special studies are being performed, and EPA's guidance to Regional Water Quality Control Boards (RWQCBs) that they may use any of the methods described in EPA's guidance document on the use of translators. We also support EPA's proposal to create a rebuttable presumption for Water Effects Ratios (WERs), allowing the RWQCBs and SWRCB to develop site-specific WERs that can be approved by EPA during the NPDES permit approval process. We believe that this approach will help facilitate the development of appropriate site-specific adjustments for metals criteria.

Response to: CTR-035-002h

EPA acknowledges the commenter's support.

Comment ID: CTR-035-019
Comment Author: Tri-TAC/CASA
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES

Comment: pp. 42173-42174 - Application of metals Criteria (Water Effect Ratios) We support EPA's proposal to allow the development of site-specific WERs as set forth in EPA's WER guidance or determined by another scientifically defensible method. We also support the application of the WER on a watershed or water body basis to the extent that it is a technically sound and cost-effective approach. However, we would note that there may be instances where a "site" should be defined to be only a portion of a water body or watershed (e.g. the entire San Francisco Bay should not be considered a single "site"). We strongly endorse the inclusion in the proposed rule of a provision, such as was included in the National Toxics Rule, to create a rebuttable presumption of a default WER value of 1.0, unless a site-specific WER is determined. We understand that to mean that an EPA rulemaking process to adopt site-specific WERs would not be required, and that instead, EPA is "pre-authorizing" the use of correctly applied water effect ratios that are approved by the State. (EPA would still have the opportunity to review each WER through the normal NPDES permit approval process.)

Response to: CTR-035-019

EPA agrees with the commenter's discussion. EPA would approve the methodology. The state would approve the WERs derived in accord with the methodology.

Comment ID: CTR-038-002b
Comment Author: Sonoma County Water Agency
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES C-22
C-01a
G-04
G-05
G-09

Comment: 2. The following provisions of the rule are supported (1) adoption of metals criteria as dissolved concentrations; (2) expression of the metals criteria as a function of the water-effect ratio; (3) adoption of the proposed new human health criterion for mercury; and (4) the Preamble discussions regarding metals translators, mixing zones, and interim permit limits.

Response to: CTR-038-002b

EPA acknowledges the commenter's support.

Comment ID: CTR-040-002a
Comment Author: County of Sacramento Water Div
Document Type: Storm Water Auth.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-040 incorporates by reference letter CTR-027
Attachments? Y
CROSS REFERENCES C-01a
G-09
G-05

Comment: PROVISIONS SUPPORTED

We support a number of provisions of the Rule, including: (1) adoption of metals criteria as dissolved concentrations; (2) expression of the metals criteria as a function of the water-effect ratio; (3) adoption of the proposed new human health criterion for mercury- and (4) the Preamble discussions regarding metals translators and mixing zones. These provisions provide a firmer scientific base for the water quality-based approach to pollution control and are a marked improvement over the old Inland Surface Waters Plan. We would urge EPA to retain these provisions in the final Rule.

Response to: CTR-040-002a

EPA acknowledges the commenter's support.

Comment ID: CTR-041-003b
Comment Author: Sacramento Reg Cnty Sanit Dist
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES G-09

Comment: Second, the District supports with reservations EPA's proposals on two subjects directly related to dissolved metals criteria, i.e. the proposed guidance on both (1) translators to convert from dissolved metals criteria to total recoverable permit limits and (2) the water-effect ratio (WER) as the method to compare the bioavailability and toxicity of a pollutant in receiving waters and in laboratory waters. Both of these two proposals must be implemented on a site-specific basis using local data, not statewide or watershed-wide data. Translators, however, should be developed whenever a discharger is willing to conduct studies in accordance with EPA-approved methods. The proposed procedure for a default value of 1.0 for a WER should mean that when a site-specific WER is to be determined, an additional EPA rulemaking process would not be required. Instead, this rule should pre-authorize the use of correctly applied WERs that are approved by the State.

Response to: CTR-041-003b

EPA agrees with the comments on translators. EPA does not agree with the comment that WERs cannot be derived on a statewide or watershed-wide basis. Some states have found it useful to pool data from several sites (hydrologically noncontiguous) and project WER values to sites having similar water quality characteristics. Because most pollution control decisions are insensitive to uncertainties in the WER estimation (that is, a range of different possible WER values will yield the same decision), it can be efficient to reserve WER derivations with the greatest site-specificity for those situations where the decision is most sensitive to uncertainties. See also the response to CTR-003-001 for discussion of the general approach for implementing WERs.

Comment ID: CTR-043-002b
Comment Author: City of Vacaville
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES C-22
C-01a
G-04
G-05
G-09

Comment: 2. The following provisions of the rule are supported: (1) adoption of metals criteria as dissolved concentrations; (2) expression of the metals criteria as a function of the water-effect ratio; (3) adoption of the proposed new human health criterion for mercury; and (4) the Preamble discussions regarding metals, translators, mixing zones and interim permit limits.

Response to: CTR-043-002b

EPA acknowledges the commenter's comment.

Comment ID: CTR-044-003b
Comment Author: City of Woodland
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES C-22
C-01a
G-09
G-05
G-04

Comment: We have reviewed the proposed CTR and offer the following comments:

2. The following provisions of the rule are supported:

(1) adoption of metals criteria as dissolved concentrations;

(2) expression of the metals criteria as a function of the water-effect ratio;

(3) adoption of the proposed new human health criteria for mercury; and

(4) the Preamble discussions regarding metals translators, mixing zones, and interim permit limits.

Were the old human health criterion for mercury (0.012 ug/ l) to be adopted, the City would have to remove its discharge from Tule Canal and go to land disposal. The capital cost to do this would be $22.1 million and the total present worth cost would be $23.1 million (see Exhibit B, Required Capital improvements and Costs for Beryllium and Mercury). This would translate to an annual cost of $3.1 million per year (at 7% over 10 years) and would require that monthly sewer service charges be increased by more than 100%.

Response to: CTR-044-003b

EPA acknowledges the commenter's comment.

Comment ID: CTR-045-005
Comment Author: Sausalito-Marin Sanitary Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES

Comment: The District supports many of the items included in the proposed CTR:

EPA's proposal to create a rebuttable presumption for Water Effects Ratios (WER) allowing RWQCBs and the SWRCB to develop site-specific WERs that can be approved by EPA during the NPDES permit approval process.

Response to: CTR-045-005

EPA acknowledges the commenter's support.

Comment ID: CTR-049-002
Comment Author: Watereuse Assoc. of California
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES

Comment: We applaud and support USEPA's creation in the draft CTR of a rebuttable presumption for Water Effects Ratios (WERs), allowing the Regional Water Quality Control Boards and the State Water Quality Control Board to develop site-specific WERs that can be approved by USEPA during the NPDES permit approval process. WateReuse believes that this flexible approach would help facilitate the development of appropriate site-specific adjustments for metals criteria.

Response to: CTR-049-002

EPA acknowledges the commenter's support.

Comment ID: CTR-054-002b
Comment Author: Bay Area Dischargers Assoc.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES C-22

Comment: BADA supports adoption of the metals criteria as dissolved concentrations and the expression of the criteria as a function of the water-effect ratio. These changes place the metals criteria on a firmer

scientific base than the old State Plans. Moreover, previous BADA studies have shown that adoption of the copper criterion as total recoverable could cost Bay Area POTWs several billion dollars while reducing copper loads to the Bay by only several percent (see Attachment 1). Further, building the water-effect ratio into the criteria will lessen the administrative burden on all parties when it becomes necessary to pursue the development of such a ratio. For these reasons, it would not be in the public interest nor consistent with Presidential Order 12866 or the Unfunded Mandates Reform Act to adopt the metals criteria as total recoverable concentrations or to require approval of a site-specific objective whenever a water-effect ratio is developed.

Response to: CTR-054-002b

See response to comment number CTR-003-001.

Comment ID: CTR-056-006
Comment Author: East Bay Municipal Util. Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/22/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-056 incorporates by reference letter CTR-054
Attachments? N
CROSS REFERENCES

Comment: Second, EBMUD would like to express to EPA it support for inclusion of:

* EPA's approach to water effects ratios for determining site specific criteria,

Response to: CTR-056-006

EPA acknowledges the commenter's support.

Comment ID: CTR-056-009
Comment Author: East Bay Municipal Util. Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/22/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-056 incorporates by reference letter CTR-054
Attachments? N
CROSS REFERENCES

Comment: Second, EBMUD would like to express to EPA it support for inclusion of:

* EPA's proposal to create a rebuttable presumption for Water Effects Ratios (WERs) which permit the

RWQCBs and the SWRCB to develop site-specific WERs that can be approved by EPA during the NPDES permit approval process. This approach should lead to the development of appropriate site-specific adjustments for metals criteria, and

Response to: CTR-056-009

EPA acknowledges the commenter's support.

Comment ID: CTR-061-014
Comment Author: G. Fred Lee & Associates
Document Type: Academia
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? Y
CROSS REFERENCES

Comment: Page 42173, third column, first two paragraphs, discuss the water effects ratio approach for adjusting national criteria. This approach does not adequately or reliably incorporate aquatic chemistry into water quality criteria adjustment. The approach tends to over-regulate because of the failure to equilibrate between the chemical forms in ambient waters and those in the test system. The statement in the third paragraph, "This approach is technically sound, an efficient use of resources... " is not appropriate since it leads to over-regulation of chemical constituents in wastewater and stormwater runoff. Enclosed is a summary report "Regulating Copper in San Francisco Bay: Importance of Appropriate Use of Aquatic Chemistry and Toxicology, " (1997) on the over-regulation of Cu in San Francisco Bay that developed due to the inability of the water effects ratio to develop site-specific criteria that properly reflect the toxicity of Cu in San Francisco Bay waters.

Response to: CTR-061-014

EPA does not agree with the commenter that a reasonably accurate water-effect ratio cannot be derived, either using current guidance or using other scientifically sound procedures allowed by the rule. See response to CTR-020-006.

Comment ID: CTR-066-003
Comment Author: Delta Diablo Sanitation Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES

Comment: Our preliminary review of the CTR finds several areas that we believe are positive changes and will enhance the rulemaking. The areas that we support as now written are as follows:

* The water effects ratios philosophy for determining site-specific criteria.

Response to: CTR-066-003

EPA acknowledges the commenter's support.

Comment ID: CTR-066-007
Comment Author: Delta Diablo Sanitation Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES

Comment: Our preliminary review ofthe CTR finds several areas that we believe are positive changes and will enhance the rulemaking. The areas that we support as now written are as follows:

* The proposal to create a rebuttable presumption for Water Effects Ratios (WERs), allowing the RWQCBs and SWRCB to develop site-specific WERs that can be approved by the EPA during the NPDES permit approval process. This approach will help facilitate the development of appropriate site-specific adjustments for metals criteria.

Response to: CTR-066-007

EPA acknowledges the commenter's support.

Comment ID: CTR-081-002b
Comment Author: West County Agency
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES G-04
G-02
C-22
G-09
C-01a
C-08a

G-05

Comment: * There are many aspects of the CTR that we support. These include: a) Application of interim limits while special studies are perfomed. b) Approach to water effect ratios for determining site specific criteria. c) Inclusion of provision for compliance schedules. However, this should be modified to allow inclusion of compliance schedules of up to 15 years in permits if deemed appropriate by Regional Boards. d) Metals criteria expressed as dissolved rather than total recoverable concentrations. e) EPA's guidance to Regional Boards regarding use of translators. f) EPA's proposal to create a rebuttal presumption for Water Effects Ratios, g) Revised human health criteria for mercury h) Decision to not promulgate human health criteria at this time in light of issues surrounding health criteria for arsenic. i) EPA's policies regarding application of mixing zones and dilution credits.

Response to: CTR-081-002b

EPA acknowledges the commenter's support.

Comment ID: CTR-085-004
Comment Author: Camarillo Sanitary District
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES

Comment: On several aspects of the California Toxics Rule, the District is in agreement with CASA and SCAP comments:

* The EPA's approach to water effect's ratios for determining the site-specific criteria.

Response to: CTR-085-004

EPA acknowledges the commenter's support.

Comment ID: CTR-085-008
Comment Author: Camarillo Sanitary District
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES

Comment: On several aspects of the California Toxics Rule, the District is in agreement with CASA and SCAP comments:

* The EPA's proposal to create a rebuttable presumption for Water Effects Ratios (WER) allowing the RWQCB and the SWRCB to develop site-specific WER that can be approved by the EPA during the NPDES permit approval process. This approach will help facilitate the development of appropriate site-specific adjustments for metal's criteria.

Response to: CTR-085-008

EPA acknowledges the commenter's support.

Comment ID: CTR-086-004d
Comment Author: EOA, Inc.
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org: California Dent
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-086 incorporates by reference letter CTR-035
Attachments? N
CROSS REFERENCES G-01
C-22
G-09
C-24
K-03
G-04
G-05
G-02

Comment: Regulatory Flexibility and Relief

CDA supports language in the CTR Preamble that references and endorses recommendations of the State Task Forces including in part the use of.

* reasonable potential analyses * dissolved metals criteria * translators * water effects ratios * site specific objectives * innovative TMDL processes such as effluent trading * performance based interim limits * chronic and acute mixing zones, and * compliance schedules in NPDES permits.

Response to: CTR-086-004d

EPA acknowledges the commenter's support.

Comment ID: CTR-090-002b
Comment Author: C&C of SF, Public Utl. Commis.
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-090 incorporates by reference letters CTR-035 and CTR-054
Attachments? Y
CROSS REFERENCES C-17a
C-22
G-05
G-02
G-04

Comment: There are many features of the proposed rule which we strongly endorse, specifically:

* the use of the latest IRIS values for human health criteria, it is essential that the criteria be based on the latest scientific and environmental information;

* recognition that the dissolved fraction of metals, rather than the total recoverable, better reflect the aquatic toxicity of metals;

* recognition that for certain metals (e.g. copper and zinc) ambient water chemistry is critical in determining toxicity thereby endorsing the Water Effects Ratio;

* recognition and strong endorsement of the multi-tiered mixing zones for acute, chronic and human health effects; and

* recognition of interim limits and compliance schedules as appropriate implementation strategies,

Response to: CTR-090-002b

EPA acknowledges the commenter's support.

Comment ID: CTR-092-004
Comment Author: City of San Jose, California
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-092 incorporates by reference letter CTR-035
Attachments? Y
CROSS REFERENCES

Comment: Application of Metals Criteria

The City supports EPA's proposal to provide for the adjustment of metals criteria through the application of the water-effects-ratio (WER) procedure to ensure that such criteria are appropriate for chemical conditions present in the water body. The City agrees with EPA that ideally, the WER process should be applied on a watershed or water body basis in California. However, the City does have sincere concerns with how a watershed and/or waterbody is defined. The City wishes to be on record that a significant body of sci ' entific information supports the contention that San Francisco Bay South of the Dumbarton Bridge (South San Francisco Bay) constitutes a distinct waterbody for purposes of the WER process. Furthermore, the City recommends that the Rule be revised to allow use of the WER procedure to develop site-specific criteria, without requiring a formal rulemaking process.

Response to: CTR-092-004

EPA recognizes the concerns expressed, but believes that the commenter's concerns may be unfounded. The CTR does not define or restrict the boundaries of any California site, or impede the appropriate definition of such boundaries. The rule also does not require or intend to require that the adoption of site-specific WERs go through a formal rulemaking. See the response to CTR-003-001.

Comment ID: CTR-092-013a
Comment Author: City of San Jose, California
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References: Letter CTR-092 incorporates by reference letter CTR-035
Attachments? Y
CROSS REFERENCES C-02b

Comment: Validity Of The Proposed Copper Criteria For South San Francisco Bay

Attachment 3 to this letter is a technical report entitled "Development of a Site-Specific Water-Effect Ratio for Copper in South San Francisco Bay", dated September 1997 and prepared by the City of San Jose Environmental Services Department.

This attachment is also incorporated as part of our comments and is being submitted for inclusion in the record for this rulemaking. Because EPA is proposing to promulgate water quality criteria for all waterbodies in the State of California, we believe that it is required toconsider site-specific data to the extent that it is available, especially, where, as in the case of the submitted data, it appears that there is a less costly/appropriately protective alternative to the proposed criteria.

Response to: CTR-092-013a

EPA disagrees with the commenter. EPA cannot efficiently include all site-specific data in its rulemaking process. Furthermore, EPA does not believe that it is either technically or administratively advantageous or efficient for the rule to specify particular site boundaries or WERs within such boundaries. Nevertheless, because it is necessary to provide for the use of site-specific data collected either before or after promulgation, the rule expresses the criteria in terms of WER values, which like

water hardness, are specified subsequent to the rulemaking. Thus, the rule has a provision allowing the the state to consider the data cited by the commenter in this context. See the response to CTR-003-001 for discussion of the general approach for implementation.

Comment ID: CTRH-001-003b
Comment Author: Robert Hale
Document Type: Public Hearing
State of Origin: CA
Represented Org: CA Stormwater Task Force
Document Date: 09/17/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES C-22
C-1a

Comment: In summing up -- not summing up, just as a parting shot -- I do appreciate the fact that in working up the toxics rule here that EPA has done certain things which in fact we see as improvements in actually making the standards fit with what we think -- have come to see as perhaps the actual impacts of the stormwater part of this. And by that, I'm referring to the dissolved metals criteria and the water effect ratio in there, and the human health criteria revisions for mercury and the other -- the other items.

I appreciate some of the stuff in there, and -- with the exception of the preamble language. And you really need to get that out of there. We're going to pursue this as far as we have to.

I appreciate your hearing me.

Response to: CTRH-001-003b

EPA acknowledges the commenter's support.

Comment ID: CTRH-001-024d
Comment Author: Michelle Pla
Document Type: Public Hearing
State of Origin: CA
Represented Org: S.F. Public Utilities Com
Document Date: 09/17/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES g-02
g-05
c-22
c-17a

Comment: MS. PLA: My name is Michelle Pla. I'm with the Public Utilities Commission, City and County of San Francisco.

I made the comment on my card that I also said that I would try to be constructive, and so I'm going to follow my mentor here, Phil Bobel, and say that there are some things in this rule that we're very pleased to see.

We're very pleased to see use of the latest scientific information, particularly the use of latest IRIS, I-R-I-S, numbers-for human health. We're very pleased that you're using dissolved versus total recoverable form for the metals.

We're very pleased to see recognition of the water effects ratios. We're pleased to see recognition for a multi-tiered mixing zone for acute and chronic human health effects and hope that the state pays particular attention to that.

We do have a problem with the way you've described compliance schedules and hope to be working strictly by the state on that as well. We think that the five-year system is fairly shortsighted, and -we can't even do FMDSLs in five years.

Response to: CTRH-001-024d

EPA acknowledges the commenter's support.

Comment ID: CTRH-001-032a
Comment Author: Dave Brent
Document Type: Public Hearing
State of Origin: CA
Represented Org: CA Water Qual. Task Force
Document Date: 09/17/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES c-22
g-5

Comment: I would like to take this time to note that I think it contains some important elements that we agree with and believe are reflective of the impact. These include the uses of dissolved metals and the provisions which will enable the state to use mixing zones and water effects ratios and establish site-specific objectives.

Response to: CTRH-001-032a

EPA acknowledges the commenter's support.

Comment ID: CTRH-001-039a
Comment Author: Robert Reid
Document Type: Public Hearing

State of Origin: CA
Represented Org: CASA
Document Date: 09/17/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES G-04
G-02

Comment: I've been saving the good news for last.

Fourth, and by no means last in priority for CASA, we wish to register our support for several parts of the preamble to the CTR.

We support application of interim limits in NPDES permits while TMDLs and other special studies are being performed.

We also support EPA's approach to water effects ratios for determining site-specific criteria.

We also support the inclusion of a provision allowing the compliance schedules in permits in the rule, although we recommend that it be modified to allow the regional boards to include compliance schedules of up to 15 years in permits, if they deem it appropriate.

Thank you for the opportunity to present our views. As I said earlier, we will be submitting detailed comments on the proposed rule by the end of the comment period, which hopefully will be extended in response to our and others' requests.

Response to: CTRH-001-039a

EPA acknowledges the commenter's support.

Comment ID: CTRH-001-057b
Comment Author: Dave Tucker
Document Type: Public Hearing
State of Origin: CA
Represented Org: San Jose Env. Serv. Dept.
Document Date: 09/17/97
Subject Matter Code: C-24a SSC Water Effect Ratios
References:
Attachments? N
CROSS REFERENCES K-03
G-04
G-07
G-09
C-22
G-05

Comment: Some of the flexibility that the City highly supports is the water effect ratio investigations to adjust statewide criteria to site-specific conditions; the interim limits concept while special studies are being conducted by the dischargers and other entities; a variance procedure to allow dischargers to achieve progress toward effluent limit attainment without violating applicable water quality standards; dissolved criteria for metals to reflect the toxicological conditions; translators to adjust dissolved criteria to total permit limitations; trading programs to attain and maintain water quality; and a mixing zone that reflects true instream pollutant conditions and that protects beneficial uses.

Response to: CTRH-001-057b

EPA acknowledges the commenter's support.

Subject Matter Code: C-24b SSC Recalculation Procedure

Comment ID: CTR-009-004
Comment Author: City of Thousand Oaks
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/22/97
Subject Matter Code: C-24b SSC Recalculation Procedure
References:
Attachments? Y
CROSS REFERENCES

Comment: At Federal Register, Page 42168, third column, EPA provides that "States may develop site-specific criteria using native species, provided that the broad spectrum represented by the eight families is maintained." In California, as in other arid and semi-arid western states, there are unique aquatic habitats that by their inherent physical chemical and hydrologic nature, are naturally very limited in species diversity as well as density. It would seem that in such cases, what is important and relevant is that the site-specific criteria be most representative of the specific waters and its natural constraints, not that criteria reflect the broad spectrum of species that do not and can not inhabit these waters. The City recommends that the requirement to maintain the eight families broad spectrum be deleted and replaced with a requirement that the site-specific criteria be based upon native species representative of the specific waters in question. In a similar situation, an EPA Administrative Law Judge found that:

"...a proposed test must be reasonably related to determining whether the discharge could lead to real world toxic effects. The Clean Water Act objective to prohibit the discharge of toxic pollutants in toxic amounts concerns toxicity in the receiving waters of the United States, not the laboratory tank."

In the Matter of Metropolitan - Dade County, Miami - Dade Wastewater Authority, NPDES Permit No. Fl, Oct., 1996. Certainly, this precept also applies when establishing a water quality criterion that is intended to protect a specific receiving water. That is, to be relevant to the site-specific waters, the criterion upon which discharge permit limitations are to be developed must be based upon species that are representative of the specific waters. The broad spectrum criteria make sense and are reasonable when applied state-wide. But application of broad spectrum criteria to a site-specific situation would seem to be the antithesis of site-specific water quality controls by definition.

Response to: CTR-009-004

In the CTR, EPA is not promulgating a site-specific criteria methodology. EPA's statement on page 42168 column 2 (not 3) is meant to provide guidance on the derivation of site-specific criteria.

EPA agrees with the general concern that its guidance might be incorrectly interpreted to mean that a site-specific taxonomic data set should have more diversity than the site actually has. EPA does not intend for its guidance to be interpreted in this manner.

Nevertheless, because the Rule does not provide for the Recalculation Procedure, the CTR criteria would continue to apply even if California adopted a Recalculation-based site-specific criterion, unless EPA amended the rule not to apply at that site.

Comment ID: CTR-025-005
Comment Author: Metro. Water Dist. of So. Cal.
Document Type: Water District
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24b SSC Recalculation Procedure
References:
Attachments? Y
CROSS REFERENCES

Comment: The CTR freshwater aquatic life criteria, in general, may not be appropriate for effluent-dominated water bodies and ephemeral streams. Some of these water bodies and the aquatic communities they support exist primarily because of discharges of reclaimed wastewater. Such water bodies are used to transport reclaimed water discharges to a downstream use area and/or are used for the disposal of surplus reclaimed water which occurs when demand is temporarily less than supply. The CTR freshwater aquatic life criteria may create requirements for reclaimed wastewater dischargers which are not economically feasible to meet and could affect the viability of reclamation activities. In Southern California, water reclamation is vital to ensuring a reliable regional water supply.

Response to: CTR-025-005

The commenter here recommends that different uses be adopted for certain waters in California. Designated uses are outside the scope of this rule. EPA has not attempted to determine the beneficial uses or the attainability of designated uses for California in this rule. This rule is to provide criteria for toxic pollutants for California based on the uses established by the State. EPA's criteria will protect these uses.

Comment ID: CTR-082-005
Comment Author: City of Burbank
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24b SSC Recalculation Procedure
References:
Attachments? N
CROSS REFERENCES

Comment: The subject rule has a significant impact on our facility discharge and the citizens of the City. We therefore present the following comments for your consideration to re-open the comment period for this rule in order to facilitate a more complete review by public and in particular by those in the POTW community:

* Propose that USEPA should accept separate significantly defensible reasonably achievable aquatic life criteria for streams and creeks that are dominated all or part of the year by discharges from anthropogenic

sources, such as POTWs (i.e., effluent dependent waters).

Response to: CTR-082-005

EPA does not agree. EPA has not developed separate criteria for effluent-dependent waters because these waters have designated uses for human health and/or aquatic life that correspond to the criteria in the rule. However, the State may consider, and EPA encourages, such criteria developments as part of the State's Phase II of the ISWP/EBWP readoption or as part of its RWQCB Basin Plan updates. In the meantime, EPA's criteria will protect all beneficial uses assigned to each inland surface water and enclosed bay and estuary.

Subject Matter Code: C-24c SSC Santa Ana River

Comment ID: CTR-033-002
Comment Author: San Bernardino Muncpl Wtr Dept
Document Type: Water District
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24c SSC Santa Ana River
References: Letter CTR-033 incorporates by reference letter CTR-020
Attachments? Y
CROSS REFERENCES

Comment: We support the deletion of site specific objectives for cadmium and copper set for in the 1995 Water Quality Control Plan for the Santa Ana River Basin. We believe the site specific objective for lead in the plan is appropriate and should be approved by the U. S. Environmental Protection Agency. This recommendation is premised on the Santa Ana Regional Water Quality Control Board amending the Basin plan to incorporate revised correction factors and recalculations for this metal based upon the most current U.S. EPA guidance and criteria documents.

Response to: CTR-033-002

We agree with the commenter's support of the Regional Water Quality Control Board, Santa Ana River Basin, and its request that we promulgate water quality standards for cadmium and copper in place of the site-specific standards contained in the 1995 Water Quality Control Plan for portions of the Santa Ana River Basin. The final CTR will continue to reflect that position as expressed in the proposed CTR.

EPA also appreciates the commentor's support of the site-specific criterion for lead in portions of the Santa Ana River Basin which the State has adopted and submitted to EPA for approval. However, EPA has not yet approved this site-specific criterion, and in the absence of EPA-approved State-adopted site-specific criteria, EPA must promulgate CTR criteria to meet the requirements of CWA section 303(c)(2)(B). Nevertheless, where site-specific criteria have already been adopted by the State in accordance with State law, but not yet acted upon by EPA, and those criteria are more stringent than applicable CTR criteria, those are the controlling criteria for CWA purposes even without a stay of the applicable CTR criteria and are thus implementable by the State. (This would not be affected by the "Alaska Rule" which EPA proposed July 9, 1999, 64 Fed.Reg. 37072. See p. 37076.) This is the case with the site-specific criterion for lead adopted by the State for certain waters in the Santa Ana River Basin. Since the State must use the most stringent criteria in effect for its water quality programs, the State may use this site-specific lead criterion notwithstanding the CTR fresh water aquatic life criterion for lead, thus the commenter's concerns should have no practical effect.

Subject Matter Code: C-24d SSC Effluent Dependent Wtr

Comment ID: CTR-034-007
Comment Author: SCAP
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References: Letter CTR-034 incorporates by reference letter CTR-035
Attachments? N
CROSS REFERENCES

Comment: CRITERIA

* SCAP recommends that EPA adopt separate criteria for water bodies in California that are dependent for all or part of the year on flows from wastewater treatment plants (known as "effluent dependent waters" or EDWs). SCAP believes that there are appropriate ways to modify aquatic life and human health criteria to tailor them to the unique conditions of the EDWs in the arid environment found throughout most of southern California. Potential methods include adjustment of the uncertainty and/or modifying factors used to calculate reference doses (RfDs) for noncarcinogenic human of 10E-4 health criteria, use or 10E-5 risk levels (instead of 10E-6) for carcinogenic human health criteria, adjustment of bioconcentration factors for human health criteria, and the use of site-specific water effects ratios for aquatic life criteria. Further comments regarding these methods are included in Attachment 1.

Response to: CTR-034-007

EPA disagrees that it must or should establish separate criteria for effluent dependent waters in this rule. In establishing water quality criteria for California, EPA is implementing section 303(c)(2)(B) of the CWA which requires adoption of criteria for all toxic pollutants for which EPA has issued criteria guidance and for which the discharge of such pollutants could reasonably be expected to interfere with the designated uses adopted by the state. EPA based the criteria contained in the CTR on its most recent national criteria guidance, which are designed to derive criteria that will be protective of aquatic life and human health. As long as a waterbody currently has a designated use for the protection of aquatic life and/or human health, application of the national 304(a) criteria are appropriate for fulfilling section 303(c)(2)(B). As a policy matter, EPA believes that the CTR, a massive undertaking in and of itself, is an essential first step toward reinstating a strong water quality program in California. Under the Clean Water Act, EPA has no obligation to develop such site-specific criteria or the data upon which such site-specific criteria would be based. If, however, the State wishes to develop site-specific criteria or to change the uses of the waterbody -- pursuant to the regulations at 40 CFR Part 131, and "Region 9's Interim Final Guidance for Modifying and Protecting Effluent-Dependent Ecosystems," EPA would consider and possibly approve such a site specific criterion or such a revision to designated uses.

With respect to risk level applicable to human health criteria when, as here, EPA establishes a water quality standard, EPA intends in its discretion to use a risk level of 1 x 10-6, although the state may in its discretion choose another risk level for protection of human health. If the State has appropriately consulted the public.

With respect to adjustment of bioconcentration factors, the commenter did not explain how or why

bioconcentration factors should be adjusted.

Further, EPA believes that the proposed CTR embodies a number of features that will facilitate the site-specific application of criteria when they are implemented by the state in the future. In proposing an equation rather than a single number for the metals listed in the table in proposed Section 131.38(b)(2) with variables including hardness and water effect ratios (WERs), and in the discussion on the application of metals criteria contained in Section 131.38(c)(4), EPA considers the proposed aquatic life criteria to be highly adjustable to or reflective of site-specific conditions characteristic of EDWs. The inclusion of WERs in these criteria embodies one method of developing water quality objectives for EDWs described in the "Report of the Effluent-Dependent Waters Task Force for Consideration of Issues Related to the Inland Surface Waters Plan" (State Water Resources Control Board, October 1995), which was a broad-based effort to address the specific characteristics of EDWs statewide (see also response to comment number CTR-057-003 below). Another method contained in that report which has been included in the proposed criteria is the use of dissolved metals in lieu of total recoverable metals. Finally, the aquatic life criteria for pentachlorophenol are expressed as a function of pH, allowing for adjustment of the numeric objectives on a site-specific basis.

Furthermore, the above-mentioned report at no point suggests that the resource-intensive task it describes of developing site-specific criteria for EDWs should be carried out by EPA. Rather, on numerous occasions the report recommends that the State or Regional Boards should perform that function. EPA agrees that the appropriate forum for addressing the recommendation in this comment is in subsequent water quality standards revisions carried out by the State, in the adoption of Basin Plans, or in implementation of these criteria in discharge permits or nonpoint source controls.

Potential methods for adjusting criteria for EDWs, with the exception of the inclusion of water effect ratios (WERs) as an optional component of determining appropriate metals criteria, should be applied in the context of State or Regional Board water quality standards-setting actions. EPA's action in promulgating statewide criteria is to reduce risks to all exposed populations, including especially sensitive subpopulations. However, site-specific criteria may be developed subsequently by the State where warranted to provide necessary additional protection, or otherwise to adjust the level of protection as appropriate to reflect site-specific conditions following a Section 304 standards-setting process including the opportunity for public involvement. As described above, EPA has included WERs in the proposed metals criteria listed in the table in Section 131.38(b)(2) for protection of aquatic life.

Comment ID: CTR-035-006
Comment Author: Tri-TAC/CASA
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: EPA should adopt separate, scientifically defensible aquatic life criteria for streams and creeks that are dominated all or part of the year by discharges from anthropogenic sources, such as POTWs (i.e. effluent-dependent waters).

Response to: CTR-035-006

See response to CTR-034-007.

Comment ID: CTR-036-009
Comment Author: County of Orange
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References: Letter CTR-036 incorporates by reference letters CTR-013, CTR-018, CTR-031, CTR-034 and CTR-040
Attachments? N
CROSS REFERENCES

Comment: We are concerned that the proposed rule would be equally applicable to effluent-dominated water bodies, particularly in the arid West. In these water bodies habitat is often fully or seasonally dependent on existing discharges and removal, due to redirection and treatment, could result in habitat loss.

Response to: CTR-036-009

For purposes of this rulemaking, EPA is presuming that the State has adequately determined the designated uses for its waters. EPA is merely adding criteria for priority toxic pollutants on a statewide basis sufficient to protect the State's designated uses. EPA believes that a use attainability analysis would provide appropriate means for resolving potential tradeoffs between maintaining discharges to support habitat and meeting stringent effluent standards in a particular waterbody. The results of such an analysis may determine whether site-specific modifications to criteria appropriate. EPA believes that the best forum for conducting these special studies and site-specific analyses is in the context of the statewide revisions of water quality standards and policies for their implementation, undertaken triennially by the State, or in the revision of regional Basin Plans. To assist with these analyses, EPA Region 9 has issued "Guidance for Modifying Water Quality Standards and Protecting Effluent-Dependent Ecosystems," (Interim Final, June 1992). This guidance introduces the "Ecological Benefit Comparison" approach with particular attention to application to EDWs. If it can be demonstrated that using an effluent to maintain riparian and aquatic habitats constitutes a net ecological benefit over removal of the effluent, the guidance describes the circumstances under which a designated but not existing use can be modified or removed. Such an approach may be applied both to aquatic life and to human consumption uses. As was recommended by the Report of the EDWs Task Force, convened by the State in 1995, Statewide plan and regional Basin Plan modifications are the preferred regulatory pathways for conducting and adopting such analyses.

Comment ID: CTR-040-016a
Comment Author: County of Sacramento Water Div
Document Type: Storm Water Auth.
State of Origin: CA
Represented Org:

Document Date: 09/25/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References: Letter CTR-040 incorporates by reference letter CTR-027
Attachments? Y
CROSS REFERENCES C-21

Comment: RECOMMENDED MODIFICATIONS

To address our concerns, we recommend the following modifications which do not undermine the toxic pollutant control actions envisioned in EPA's economic analysis (e.g., BMPs for stormwater and source control). In fact, some of these recommendations would provide incentives for greater movement toward achieving the water quality criteria than would occur under the Rule as it is currently proposed.

III. Recommendation: Adopt separate, scientifically defensible, reasonably achievable aquatic life criteria for effluent-dominated/effluent-dependent streams.

* Available discharge data for effluent-dominated streams in Sacramento indicate that a number of the proposed criteria are not presently being achieved and cannot be achieved with implementation of BMPs or other reasonable controls (See Attachment A). This is also true for many municipal stormwater programs in California.

* The application of the proposed statewide criteria to effluent-dominated waters would force the Sacramento Stormwater Management Program, and other stormwater programs, to remove these discharges, essentially drying up the waters for most of the year. The costs would be significant and the benefits assessed in EPA's economic analysis (enhanced fishing, passive benefits, and reduced cancer risk) would be zero. The removal of these discharges would likely be detrimental rather than beneficial. The effluent-dependent aquatic and riparian habitat, which previously supported aquatic life and wildlife, would no longer exist.

* Effluent-dominated and effluent-dependent water bodies, which are common in California, require separate and distinct water quality criteria. Such a move is common sense and would be in accordance with the spirit (if not the letter) of Presidential Executive Order 12866 and the Unfunded Mandates Reform Act.

* Additionally, the CWA requires that water quality standards be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and also taking into consideration their use and value for navigation (See CWA section 303(c)(2)(A)). Consistent with this statutory mandate, EPA regulations require that water quality standards be based on identification of specific water bodies where toxic pollutants may be adversely affecting water quality or the attainment of the designated water use, or where the levels of toxic pollutants are at a level to warrant concern and must adopt criteria for such toxic pollutants applicable to the water body sufficient to protect the designated use. Clearly the intent of both the CWA and EPA regulations is that water quality standards be tailored to the characteristics of the waters in question, rather than based on the "one-size-fits-all" approach used in the proposed Rule. This is not the cumbersome task suggested by the Preamble, at least with respect to developing criteria appropriate for effluent-dependent waters. But, even if it were a cumbersome task, the difficulty of complying with the law is not an excuse for noncompliance.

* EPA could fulfill its obligation under the CWA and EPA regulations with respect to

effluent-dominated waters simply by proposing criteria for these waters that are generally achievable by present stormwater discharges. Then, using the more stringent statewide criteria as a tracer, control measures and BMPs could be implemented to reduce the discharge of problematic pollutants to the MEP.

Response to: CTR-040-016a

Regarding the first and third recommendations under part III, see the response to CTR-034-007.

Regarding the second recommendation under part III; with respect to the comment about removal of discharges see the response to comment number CTR-036-009 above. Further, with respect to comments that compliance with water quality criteria would incur costs that exceed benefits, EPA believes Sacramento County's has overestimated its incremental expense resulting from implementation of the CTR (for further detail see the response to comment in Section J, "Stormwater Economics," Issue 1). In any case, the Clean Water Act requires the states, or EPA to establish criteria that are protective of the designated uses, regardless of costs. This means that EPA must develop scientifically-based criteria that are protective of designated uses. In existing state water quality standards, however, the designated uses are not refined as suggested in Region 9's Guidance for Modifying and Protecting Effluent Dependent Ecosystems to suggest a use that would have different criteria. Until that is done, EPA is establishing criteria that protect the current designated use.

Regarding the fourth recommendation under part III, see the response to comment number CTR-034-007.

Regarding the fifth recommendation under part III, the Clean Water Act requires EPA to establish criteria that will be protective of designated uses. Establishing criteria for waters based on controls dischargers can currently achieve in their discharges may not ensure that criteria are protective of designated uses.

Comment ID: CTR-042-005
Comment Author: Cal. Dept. of Transportation
Document Type: State Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? Y
CROSS REFERENCES

Comment: 5. The CTR should address effluent dominated waterbodies.

The CTR, as currently proposed, does not recognize that many of the waterbodies in the state are classified as "effluent dominated." In many areas of the state, particularly in Southern California, storm water and wastewater discharges are the primary or only source of water to urban creeks and waterways. To meet CTR criteria on discharges to these waterbodies, zero discharge or advanced treatment technologies may be required. The cost to accomplish this would be substantial and the benefit would be marginal, if not negative. A negative benefit would be realized if the removal of storm water and wastewater discharges to these waterbodies causes damage to the aquatic organisms and wildlife that are supported by and rely upon these effluent dependent waterbodies.

Request: Caltrans requests that the CTR be amended to include separate and distinct water quality criteria for effluent dominated or storm water runoff dependent waterbodies.

Response to: CTR-042-005

Concerning the first paragraph of comment 5, see the response to comment number CTR-036-009 and 040-16a above.

Concerning the second paragraph of comment 5, see the response to comment number CTR-034-007 above.

Comment ID: CTR-043-007
Comment Author: City of Vacaville
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? Y
CROSS REFERENCES

Comment: 7. EPA should adopt separate, scientifically defensible, reasonably achievable aquatic life criteria for streams and creeks that are dominated all or part of the year by discharges from anthropogenic sources. The application of the proposed statewide criteria to waters dominated by discharges from anthropogenic sources would force point source dischargers to remove their discharges, in many cases drying up the waters for most of the year. The costs would be significant and the benefits, at least the benefits assessed in EPA's economic analysis (enhanced fishing, reduced cancer risk, and passive benefits), would be negligible. In fact, the removal of these discharges could be detrimental rather than beneficial. The aquatic and riparian habitat, which previously supported aquatic life and wildlife, would no longer exist. This common type of water body (i.e., effluent dependent waters) demands separate and distinct water quality criteria by any reasonable yardstick, including common sense and the spirit (if not the letter) of Presidential Executive Order 12866 and the Unfunded Mandates Reform Act. Additionally, as previously stated, EPA regulations require that water quality standards be based on identification of specific water bodies where toxic pollutants may be adversely affecting water quality or the attainment of the designated water use or where the levels of toxic pollutants are at a level to warrant concern and must adopt criteria for such toxic pollutants Applicable to the water body sufficient to protect the designated use." Clearly the intent of these regulations is that water quality standards be tailored to the characteristics of the waters in question, rather than the "one-size-fits-all" approach in the proposed rule. This is not the cumbersome task suggested by the Preamble at least with respect to developing criteria appropriate for effluent dependent waters. But, even if it were a cumbersome task, the difficulty of complying with the law is not an excuse for noncompliance. EPA could fulfill its obligation under the Act and EPA regulations with respect to effluent dependent waters simply by proposing criteria for these waters that are presently achievable by municipal wastewater and stormwater discharges and then using the more stringent statewide criteria as a trigger for development and implementation of controls that will reduce the discharge of problematic pollutants to the maximum extent practical.

Response to: CTR-043-007

See responses to CTR-034-007, CTR-036-009, and CTR-040-016a. See also the responses to comment in the Legal Concerns Category (C-21) including CTR-005-006a, CTR-036-009, CTR-038-006a, and the record for this rule for a discussion about why this rule applies to all waters that do not have water quality criteria for toxic pollutants.

With respect to EPA's compliance with Executive Order (E.O.) 12866, the Regulatory Flexibility Act (RFA), and the Unfunded Mandates Reform Act (UMRA), see the preamble to the final rule.

Comment ID: CTR-044-008
Comment Author: City of Woodland
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? Y
CROSS REFERENCES

Comment: We have reviewed the proposed CTR and offer the following comments:

7. EPA should adopt separate, scientifically defensible, reasonably achievable aquatic life criteria for streams and creeks that are dominated all or part of the year by discharges from anthropogenic sources. The application of the proposed statewide criteria to waters dominated by discharges from anthropogenic sources--would force point source dischargers to remove their discharges, in many cases drying up the waters for most of the year. The costs would be significant and the benefits, at least the benefits assessed in EPA's economic analysis (enhanced fishing) reduced cancer risk, and passive benefits), would be negligible. In fact, the removal of these discharges could be detrimental rather than beneficial. The aquatic and riparian habitat, which previously supported aquatic life and wildlife, would no longer exist. This common type of water body (i.e., effluent dependent waters) demands separate and distinct water quality criteria by any reasonable yardstick, including common sense and the spirit (if not the letter) of Presidential Executive Order 12866 and the Unfunded Mandates Reform Act. Additionally, as previously stated, EPA regulations require that water quality standards be based on identification of specific water bodies where toxic pollutants may be adversely affecting water quality or the attainment of the designated water use or where the levels of toxic pollutants are at a level to warrant concern and must adopt criteria for such toxic pollutants applicable to the water body sufficient to protect the designated use." Clearly the intent of these regulations is that water quality standards be tailored to the characteristics of the waters in question, rather than the "one-size-fits-all" approach in the proposed rule. This is not the cumbersome task suggested by the Preamble at least with respect to developing criteria appropriate for effluent dependent waters. Bur, even if it were a cumbersome task, the difficulty of complying with the law is not an excuse for noncompliance. EPA could fulfill its obligation under the Act and EPA regulations with respect to effluent dependent waters simply by proposing criteria for these waters that are presently achievable by municipal wastewater and stormwater discharges and then using the more stringent statewide criteria as a trigger for development and implementation of controls that will reduce the discharge of problematic pollutants to the maximum extent practical.

Response to: CTR-044-008

See responses to CTR-034-007, CTR-036-009, CTR-040-016a, and CTR-043-007.

Comment ID: CTR-049-004
Comment Author: Watereuse Assoc. of California
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: With respect to other criteria proposed for adoption in the draft CTR, we recommend that USEPA:

2. Adopt separate, scientifically defensible, and achievable aquatic life criteria for streams and creeks that are dominated all or part of the year by discharges from recycled water;

Response to: CTR-049-004

See response to CTR-034-007.

Comment ID: CTR-056-011
Comment Author: East Bay Municipal Util. Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/22/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References: Letter CTR-056 incorporates by reference letter CTR-054
Attachments? N
CROSS REFERENCES

Comment: Third, regarding the criteria being proposed for adoption in the draft CTR, EBMUD recommends that EPA should:

* Evaluate and adopt separate, scientifically defensible, reasonably achievable aquatic life criteria for streams and creeks that are dominated all or part of the year by dischargers from anthropogenic sources such as POTWs (i.e. effluent-dependant waters).

Response to: CTR-056-011

See response to CTR-034-007.

Comment ID: CTR-057-003
Comment Author: City of Los Angeles
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: Effluent-Dependent Water Bodies

On Page 42164, the proposed Rule states that the EPA disapproved the deferral of water quality objectives in the ISWP for effluent dominated streams (Category "a") and agricultural drainage on the basis of imprecise and overly broad definitions. Since the ISWP was invalidated, the issue of effluent-dependent water bodies (EDW) was analyzed in detail via the State's Public Advisory Task Force process. Through our participation on the EDW Task Force (which included representatives from the EPA), we can confidently state that the issue has since been much better defined and that there is a full consensus that these water bodies need to be recognized in the establishment of water quality criteria.

In developing its list of non-compliant water bodies under the 303(d) provision, the State in essence acknowledged that EDWs are problematic simply because they support beneficial uses that would not otherwise exist without the flows of point and non-point discharges. This situation is compounded by the fact that all waters of the State, regardless of provenance, are classified as potential sources of domestic water supply; again, this is a potential benefit that would not otherwise be possible without effluent discharges, and this benefit should be recognized in the proposed Rule.

From this, we conclude that the proposed Rule is not complete because it does not recognize the importance of EDWs as was conclusively demonstrated by the EDW Task Force. . The EDW concept should not be abandoned, and we strongly urge the EPA to replace its statements on Page 42164 with a brief acknowledgment of the findings and recommendations of the EDW Task Force. We believe that this will provide additional impetus for the State to incorporate EPA-approved EDW provisions in its own plan.

Response to: CTR-057-003

EPA participated in the EDW Task Force with other stakeholders representing the industrial, municipal, storm water, agricultural, environmental, water supply, public health and regulatory sectors. The goal of the Task Force was to develop recommendations for the State Water Resources Control Board (SWRCB) regarding how to provide reasonable protection for appropriate beneficial uses of EDWs. After considering the complexities of the analyses necessary to characterize and determine appropriate water quality objectives for EDWs, the Task Force recommended the following two-step approach to regulating them. The first step is to modify the present designated beneficial uses such that they more accurately reflect actual uses. The second step is to adopt water quality objectives appropriate for each use designation. The needs for developing this approach would be: to define EDWs in the new State plans, to define EDW-specific use categories, to define and categorize all EDWs by use categories in the State, and to adopt appropriate water quality objectives for EDWs. While emphasizing again that this work should be done within the context of either SWRCB or Regional Board standards-setting actions, EPA

acknowledges and agrees with the recommended approach. EPA further notes that the Task Force report also recommends that the SWRCB should develop technical evaluation criteria for a number of the steps identified above, and that the SWRCB should consider convening a technical advisory committee to address these issues. Until the recommended technical evaluation criteria are established and implemented, EPA considers that criteria should be adopted on a statewide basis.

See also response to comment number CTR-034-007 above.

Comment ID: CTR-059-010
Comment Author: Los Angeles County Sanit. Dist
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References: Letter CTR-059 incorporates by reference letter CTR-035
Attachments? Y
CROSS REFERENCES

Comment: Due to the time constraints of the comment period, we have focused our review and comments primarily on those criteria that we anticipate may cause compliance issues for one or more of the Sanitation Districts' WRPs (see below). Based on our initial review of the proposed rule, the Sanitation Districts recommend that adoption of some of the criteria be deferred. As explained in the attached comments, we believe that there are significant scientific issues regarding the human health criteria for several trihalomethanes that call into question the accuracy and appropriateness of the proposed criteria. In addition, we reconunend that EPA defer adoption of those criteria that are below detection limits and that have not been demonstrated to be adversely affecting water quality or the attaimnent of designated uses on a water body-specific basis in California. In addition, we recommend that EPA not adopt criteria for effluent dependent waters, unless they have been adjusted to reflect the characteristics of this type of water body.

Criteria for Effluent Dependent Waters

As discussed above, the water quality standards regulations (specifically, 40 CFR section 131.11) requires EPA to examine the specific water bodies and uses to be protected before adopting criteria in water quality standards. As EPA is aware, streams and washes in and areas have unique characteristics, and in many locations in southern California, POTW discharges have transformed ephemeral streams into what are essentially perennial streams. These are often referred to as "effluent dependent waters" or EDWs. The impact of this has been to create new riparian habitats that provide valuable ecological benefits. However, this has also raised many questions regarding what water quality standards should be applied to EDWs. For instance, since the use of treated wastewater for drinking water is restricted by the Department of Health Services, it is questionable whether the municipal drinking water designated use (MUN) is appropriate for EDWS. LACSD believes that, based on the requirements of the water quality standards regulations, that EPA has not demonstrated that the proposed CTR criteria are appropriate for EDWs, and that a more appropriate course of action would be for EPA to adopt separate criteria for water bodies in California that are dependent for all or part of the year on flows from wastewater treatment plants.

Appropriate ways to modify aquatic life and human health criteria for EDWs could include adjustment of the uncertainty and/or modifying factors used to calculate reference doses (RfDs) for noncarcinogenic human health criteria, use of 10E-4 or 10E-5 risk levels (instead of 10E-6) for carcinogenic human health criteria, adjustment of bioconcentration factors for hwnan health criteria, the use of site-specific water effects ratios for aquatic life criteria, and the adjustment of the low flow values, frequency of exceedence and/or criteria averaging periods used in deriving or applying the criteria. As an agency that owns and operates numerous treatment plants that discharge into EDWs, and that has a substantial base of knowledge regarding the quality of the effluent and the conditions in the ambient environment in the vicinity of these discharges, we would be pleased to work with EPA to craft water quality criteria for toxic pollutants that are appropriate for EDWs in southern California.

Response to: CTR-059-010

In response to the recommendation that EPA not adopt criteria for effluent dependent waters unless they have been adjusted to reflect the characteristics of this type of water body, see the response to comment number CTR-034-007.

Concerning the comment that water quality standards regulations require EPA to examine specific water bodies and their uses before adopting criteria for them, see response to comment number CTR-040-016a. Concerning what designated uses are appropriate for EDWs, see response to CTR-036-009. See also responses to comment CTR-005-006a, CTR-036-005, and CTR-038-006a in the Legal Concerns Category (C-21). For purposes of this rulemaking, EPA is presuming that the State has adequately determined the designated uses for its waters. EPA is promulgating criteria for priority toxic pollutants on a statewide basis sufficient to protect the State's designated uses.

Concerning appropriate ways to modify aquatic life and human health criteria for EDWs, with the exception of application of water effect ratios (WERs), EPA considers that the methods suggested should be applied in the context of State or Regional Board water quality standards-setting actions. EPA's action in promulgating statewide criteria is to reduce risks to all exposed populations, including especially sensitive subpopulations. However, site-specific criteria may be developed subsequently by the State where warranted to provide necessary additional protection, or otherwise to adjust the level of protection as appropriate to reflect site-specific conditions following a Section 304 standards-setting process including the opportunity for public involvement. As described above, EPA has included WERs in the proposed metals criteria listed in the table in Section 131.38(b)(2) for protection of aquatic life.

With respect to adjusting frequency of exceedence and/or criteria averaging periods, EPA refers the commenter to Appendix D of EPA's "Technical Support Document For Water Quality-Based Toxics Control" (EPA/505/2-90-001, March 1991), in particular to the discussion entitled "Considerations for Proposing Site-Specific Increases or Decreases in the Averaging Frequency of Allowed Excursions." Although more frequent than once-in-three-years excursions might be acceptable in certain situations, where, for example, areas of refuge for aquatic organisms are available or for certain lower-order streams, the converse may also be true depending on the size of the drainage and the persistence of the pollutant in question. As stated previously, EPA considers it inappropriate for EPA to develop site-specific criteria for California EDWs. The averaging periods of EPA proposed criteria for toxics are based on data from nation-wide laboratory toxicity tests. The once-in-three-years frequency of exceedence is based on field data. With the concurrence of EPA, States may adopt site-specific criteria, including potentially different averaging periods and frequencies of allowed excursions, for individual or appropriate categories of water bodies. The kinds of data necessary to justify adoption of such criteria may be determined by reviewing the studies referenced in Appendix D of the Technical Support Document and following procedures described in Chapter 3 of EPA's Water Quality Standards Handbook

(EPA-823-94-005a, August 1994

With regard to the adjustment of low-flow values (although this issue concerns implementation of proposed criteria, and is thus also more appropriate for the State to consider), the once-in-ten-year seven-day average low flow design condition (7Q10) has historical precedent and is part of many States' water quality standards. In addition, this value approximates the same degree of protection as the three-year return interval of the proposed acute and chronic criteria. Given the state of the science, and the limitations of available data, EPA as a matter of policy takes the position that it should assure adequate protection and takes a conservative approach to establishing water quality criteria. This policy is also consistent with and recognizes historic program practices and procedures used by both the Agency and the States in implementing the water quality standards and related implementation programs. (Guidelines for Developing or Revising Water Quality Standards, April 1973, p.7.)

Comment ID: CTR-081-004a
Comment Author: West County Agency
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES C-24e

Comment: * EPA should consider adopting separate, scientifically defensible and reasonably achievable aquatic life criteria for waters that are effluent-dependent for all or part of the year. In addition, the aquatic life criteria should be applied to those waters identified in the Basin Plans instead of "all waters. "

Response to: CTR-081-004a

Concerning the issue of adopting separate aquatic life criteria for effluent-dependent waters, see the response to CTR-034-007.

Concerning the issue of application of those criteria to waters identified in the Basin Plans, EPA considers that, withrespect to protection of aquatic life, the proposed CTR criteria apply to all waters in the State of California except for those covered by the NTR, as amended or those covered by an EPA approved site-specific criterion or basin plan objective. If the aquatic life use designation is considered inappropriate, it may be removed only where a use attainability analysis is conducted and approved, as described further in response to CTR-036-009.

Comment ID: CTR-085-014
Comment Author: Camarillo Sanitary District
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97

Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: The District supports the following positions of CASA and SCAP where changes need to be made in the proposed California Toxics Rule:

* The EPA should adopt separate, scientifically defensible, reasonably achievable aquatic life criteria for streams and creeks that are dominated all or part of the year by discharges from anthropogenic sources, such as POTW's (i.e., effluent dependent waters).

Response to: CTR-085-014

See response to CTR-034-007.

Comment ID: CTR-089-006
Comment Author: Las Virgenes Mncpl Water Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: While the draft regulations demonstrate clear progress on these and other issues, there remain some unresolved problems that could compromise our ability to serve our customers. We offer these comments in the hope of minimizing those potential impacts.

Incorporation of the Inland Surface Water Plan Task Force Recommendations

A final issue is whether the draft CTR gave adequate consideration of the recommendations of the state's Inland Surface Water Plan (ISWP) Task Force. The ISWP Task Force was created specifically to address the court-mandated need for multiple-stakeholder input in the state's implementation of the Clean Water Act. The ISWP Task Force included at least two groups (Toxics task force and Effluent Dependent Waterbody task force) specifically charged with making recommendations for the adoption of toxics criteria in the state's inland waters.

The absence of any criteria for toxics in effluent,-dependent waterbodies causes us to wonder how the draft CTR incorporated the recommendations of the ISWP task force. The issue here is that criteria that are too strict may cause dischargers to seek alternative disposal options, which could result in stream wildlife impacts greater than those resulting from substandard water. This issue is paramount in the state's arid regions, where the availability of water of any quality can dictate whether aquatic life exists at all. The rebuttal position that dischargers should be forced to treat the water anyway ignores the fact that, if treated to these standards, the water becomes valuable for other uses such as recycling, which dischargers are legally-entitled to pursue. Indeed, state water policy is to encourage water recycling

efforts specifically to offset the need to import water from the state's less arid regions and the Colorado River Basin.

Response to: CTR-089-006

See the response to CTR-034-007. Concerning incorporation of the Inland Surface Water Plan Task Force Recommendations, see also response to CTR-057-003.

Comment ID: CTR-096-006
Comment Author: City of Modesto
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: Thank you for the opportunity to comment on the proposed California Toxics Rule. The City's comments are related to five main concepts:

Specifically, the City submits the following comments:

C. EPA should adopt separate scientifically based aquatic life criteria for rivers that maybe dominated all or part of the year by discharges from anthropogenic sources, such at POTWs (i.e. effluent-dependent waters).

Response to: CTR-096-006

See response to CTR-034-007.

Comment ID: CTRH-002-012
Comment Author: Lisa Ohlund
Document Type: Public Hearing
State of Origin: CA
Represented Org: Alliance of So. CA POTWs
Document Date: 09/18/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: However, there are several areas in which we would like to request the EPA make changes. For example, we'd like to see EPA adopting separate aquatic life criteria for streams and creeks in arid areas that are dependent for most or all of their flows on discharges from wastewater treatment facilities.

Response to: CTRH-002-012

See response to CTR-034-007.

Comment ID: CTRH-002-020
Comment Author: Ing-Yig Cheng
Document Type: Public Hearing
State of Origin: CA
Represented Org: L.A. Bureau of Sanitation
Document Date: 09/18/97
Subject Matter Code: C-24d SSC Effluent Dependent Wtr
References:
Attachments? N
CROSS REFERENCES

Comment: The final issue that I would like to present concerns the need for recognition in the CTR for effluent dependent waters. Many POTWs in Southern California discharge to waterways that would otherwise be nonexistent during the dry seasons. This has allowed for the establishment of aquatic habitats and other beneficial uses in those waterways. Since it is not an isolated concern, this issue needs to be recognized. If CTR rule-making is limiting itself to establishing a conservative water quality criteria that assures protection of all waters regardless of its condition, then a mechanism needs to be provided in CTR to deal with the EDS issues. EPA cannot simply deny us the designation of Categories A, B and C in the old Inland Surface Water Plan; instead, this issue must be addressed.

Response to: CTRH-002-020

Concerning the first part of this comment see the response to CTR-036-009 above.

Concerning the comment that a mechanism needs to be provided in CTR to deal with the EDW issues, EPA considers that by incorporating variables of hardness, water effect ratios and pH as appropriate into the proposed CTR criteria as described further in response to CTR-034-007 above, it has provided such a mechanism. Beyond such adjustments, criteria would have to be further revised by means of a use attainability or other site-specific analysis, which should be conducted at the State or local level as described in response to the fourth recommendation in CTR-040-016a, above.

Concerning the comment that EPA cannot simply deny California the designation of Categories (a), (b) and (c) in the old Inland Surface Waters Plan: EPA's action in only partially approving California's Inland Surface Waters and Enclosed Bays and Estuaries Plans was to conclude that deferral of adoption of toxics criteria for categories (a) and (b) and the exemption from coverage of category (c) were inconsistent with CWA section 303(c)(2)(B). EPA would be willing, pursuant to its Guidance for Modifying and Protecting Effluent Dependent Ecosystems, to consider application of alternate uses that would lead to less stringent criteria. Thus, EPA did not "deny ... the designation" of EDWs, as is alleged in this comment, as much as disapprove the deferral and exemption of these waters from having any criteria for toxics.

Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses

Comment ID: CTR-013-006b
Comment Author: County of Los Angeles
Document Type: Storm Water Auth.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References: Letter CTR-013 incorporates by reference letter CTR-027
Attachments? N
CROSS REFERENCES I-04

Comment: In addition, we would like to emphasize the following concerns which greatly impact the Los Angeles County Stormwater Program:

6. The proposed criteria will apply to all inland surface waters and enclosed bays and estuaries, regardless of the designated or attainable uses for a water body. This is of particular concern for waters that only have flows during wet weather events or that are point source effluent dominated water bodies. Blanket application of water quality criteria to all waters without designated uses is inconsistent with Federal and State water quality laws. Water quality standards are made up of two components--designated uses and the appropriate criterion to ensure the designated use can be achieved. Assigning criteria to a water body without first considering the designated uses is inappropriate and could result in over restrictive, unnecessary permit limits potentially resulting in significant compliance costs to a discharger.

It is common in California for urban stormwater runoff discharges to be the primary or only source of waters to urban creeks and waterways, that is, there would be little or no flow during most of the year were it not for urban stormwater or other point source discharges. Given the potential compliance problems for stormwater discharges forcertain constituents (even after a fully implemented BMP program), a municipality could be forced to remove stormwater discharges from the creek. The costs would be significant and the benefit little, if any. In fact, the removal of these discharges would be environmentally damaging to aquatic life and wildlife that were supported by the effluent/runoff dependent waters.

Therefore, the proposed rule should be revised to avoid blanket application of the proposed criteria to all surface waters and to require appropriate beneficial and attainable uses of all waters be determined prior to imposing water quality criteria in the water body. The rule should also be revised to implement separate and distinct water quality criteria for water bodies that are primarily effluent or runoff-dependent.

Response to: CTR-013-006b

As discussed in the preamble, the purpose of today's rule is to establish numeric criteria for those navigable waters in California that do not have criteria for priority toxic pollutants in place. The State has in place specific use designations that were duly adopted by the State through its Regional Water Quality Control Board's Basin Plans which include aquatic life, human health and other uses to be protected in particular waterbodies. Thus, EPA, in this rulemaking, is not revising those use designations established by the State.

Furthermore, EPA encourages the commenter to work with the State in its review and adoption of the Basin Plans to refine those use designations that the commenter believe might be inappropriate. Such review could encompass a use attainability analysis to determine if the designated uses need to be changed to reflect uses that are no longer attainable, provided that the existing uses (those uses established on or after November 28, 1975) are still protected. A use attainability analysis is an assessment of physical, chemical, biological and economic factors that affect the attainment of a use.

Comment ID: CTR-020-017
Comment Author: City of Stockton
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? Y
CROSS REFERENCES

Comment: II. Use of New Scientific Information

The City acknowledges and supports EPA's update of several water quality criteria including those for mercury, cadmium and arsenic. While a number of criteria were updated to reflect current scientific information, there are a few notable exceptions.

The following briefly addresses the key updates and omissions that should be addressed in the final publication of this rule.

6. Human Health Criteria Application

These stringent criteria, which are based upon the assumption that two liters of water is consumed per day, are specified to apply to all surface waters with a MUN designation. This is a default designation for many waters in the various Basin Plans and means that ditches and other water bodies that clearly have no actual or extremely limited drinking water use potential will be regulated more stringently than tap water for many pollutants. This is an overly broad application of the federal criteria and is unnecessary to ensure appropriate public health protection. EPA should revise the rule to specify that consumption-based criteria will only apply to waters in the vicinity of water intakes which will allow for consideration of fate and transport of pollutants before determining that a potential public health threat exists. Likewise, fish consumption-based criteria should only apply where the Department of Fish & Game determines that there is a reasonable likelihood of the presence of a game fishery. If such a fishery is not present, there will be no human exposure to the pollutants justifying implementation of stringent point or non-point controls.

Response to: CTR-020-017

EPA disagrees that the application of the human health criteria in waters that have a MUN designation is unnecessary to protect public health in California. EPA believes that the application of the human health criteria that considers exposure from both fish and drinking water consumption in waters that have a

MUN designation is appropriate and consistent with State practices and regulatory requirements (Section 131.11 of the Water Quality Standards Regulation requires the adoption of criteria to protect the uses of state waters). The State assigns the MUN designation to waters that are potential or actual drinking water supplies. Since EPA has no intention of changing the uses designated by California in this rulemaking. EPA encourages the commenter to work with the State in its review and adoption of the Basin Plans to refine or modify those use designations that the commenter believe might be inappropriate.

Comment ID: CTR-026-001b
Comment Author: Cal. Department of Fish & Game
Document Type: State Government
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES A

Comment: 1 . DESIGNATED USES AND ANTIDEGRADATION POLICY

The DFG is concerned with the issues of "designated uses" and an "antidegradation policy" as they apply to the formation of water quality standards. It is our understanding that water quality standards are comprised of, or defined by, three components: 1) designated uses, 2) numeric water quality criteria, and 3) an antidegradation policy. The CTR is not clear on which designated uses are being identified and when they were established. The rule needs to identify what designated uses are being assigned and when these uses were or should be attained. At issue is which uses should be maintained and protected, and what the baseline should be for designating the various beneficial or designated uses for inland freshwater and bay and estuarine waters of the state. We believe that any baseline for applying the antidegradation policy should establish what the quality of the water would have been historically in the absence of human impacts. Under the Porter Cologne Act, the State's primary water quality statute, the dischargeof waste into state waters is not a right but a privilege. Since the discharge of waste is not considered a beneficial use, it should not be permitted in public waters unless it is determined that all beneficial uses, especially publicly entrusted fish and wildlife resources, are fully protected. This is especially true for wetlands throughout the State. The proposed rule is not clear as to when the baseline starts (i.e., historical vs. statutory). The DFG believes that, to the extent practicable, designated uses should be reflective of what has been realized in the past. If the CTR is utilizing a statutory date for which baseline designated uses were identified, then the CTR needs to include a justification for such a date.

With respect to antidegradation, it is not clear whether or not the proposed rule is subject to these requirements. It is our understanding that when a proposed action would allow less stringent criteria than previously proposed or adopted, and if that action would result in more loading of a particular constituent into waters of the State, then an appropriate antidegradation analysis shall be required. It is not clear what process EPA has undertaken to adequately address antidegradation issues related to the proposed new criteria. It may be that the applicability of the antidegradation policies are more pertinent with respect to site-specific criteria that may be included in the final rule. We recommend that the CTR adequately address this issue and apply the antidegradation policy where necessary.

Response to: CTR-026-001b

See response to CTR-013-006b. For a response to antidegradation issues, see response to CTR-026-001a.

The purpose of this rule is to establish numeric criteria for those waters identified in the State's Basin Plans that were duly adopted by California's Regional Water Quality Control Boards that do not have water quality criteria for priority toxic pollutants in place. These Plans have specific use designations for waterbodies that were duly adopted by the State through its Regional WaterQuality Control Boards' basin plans that identify aquatic life and human health uses to be protected in particular waterbodies. EPA, in this rulemaking, is not revising or establishing the use designations for waters contained in the State's Basin Plans. The review of those uses designations established by the State are outside of the scope of today's rule. Furthermore, EPA does not believe that an evaluation of the use designations or a discussion on the dates those uses were assigned is within the scope of this rulemaking action. However, EPA does note that in today's rule and in the proposed rule (see 40 CFR 131.36(d)(1) through (d)(3)), the Agency identifies the water use classifications that are subject to this Federal rule.

Comment ID: CTR-027-007b
Comment Author: California SWQTF
Document Type: Storm Water Auth.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References: Letter CTR-027 incorporates by reference letters CTR-001, CTR-036 and CTR-040
Attachments? N
CROSS REFERENCES I-04

Comment: 7. The proposed criteria will apply to all inland surface waters and enclosed bays and estuaries regardless of the designated or attainable uses for a water body. This is of particular concern for waters that only have flows during wet weather events, or that are point source effluent dominated water bodies. Blanket application of water quality criteria to all waters without designated uses is inconsistent with federal and state water quality laws. Water quality standards are made up of two components - designated uses and the appropriate criteria to ensure the designated use can be achieved. Assigning criteria to a water body without first considering the designated uses is inappropriate and could result in overly restrictive, or unnecessary permit limits, potentially resulting in significant compliance costs to a discharger.

It is common in California for urban stormwater runoff discharges to be the primary or only source of waters to urban creeks and waterways; that is, there would be little or no flow during most of the year were it not for man's activities. Given the potential compliance problems for stormwater discharges for certain constituents (even after a fully implemented BMP program) a municipality could be forced to remove stormwater discharges from the receiving water. The costs would be significant and the benefit little, if any. In fact, the removal of these discharges would be environmentally damaging to aquatic life and wildlife that were supported by the effluent/runoff dependent waters.

Recommendation: The proposed rule should be revised to avoid blanket application of the proposed criteria to all surface waters, and to require appropriate beneficial and attainable uses of all waters be determined prior to imposing water quality criteria in the water body. The rule should also be revised to

implement separate and distinct water quality criteria for water bodies that are primarily effluent or runoff dependent waters. An example of such flexibility is the use of a less stringent cancer risk factor such as 10E-4 or 10E-5 for the human health criteria for effluent dominated streams.

Response to: CTR-027-007b

See response to CTR-027-007a.

Comment ID: CTR-035-007
Comment Author: Tri-TAC/CASA
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES

Comment: EPA should apply the aquatic life criteria only to those waters identified in Regional Water Quality Control Plans ("Basin Plans") as having full aquatic life use designations, rather than to "all waters," in the same way that the human health criteria for water and organisms are applied only to those waters designated in Basin Plans with the municipal drinking water supply, beneficial use ("MUN" use).

Response to: CTR-035-007

See response to CTR-081-004b.

Comment ID: CTR-035-038
Comment Author: Tri-TAC/CASA
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES

Comment: p. 42207 -- Beneficial Use Designations (Applicability of Criteria) We are concerned about what appear to be overly broad statements in the proposed regulation regarding the applicability of the criteria. We recommend that EPA remove the following statement contained in section 131.38(d)(1) of the regulation: "Although the State has adopted several use designations for each of these waters, for purposes of this action, the specific standards to be applied in paragraph (d)(2) of this section are based on the presence in all waters of some aquatic life designation and the presence or absence of the MUN use designation (municipal and domestic supply)" (62 Fed. Reg. 42207) (emphasis added). We also

request that EPA delete from the regulation the statement that begins this paragraph, which states that "Except as specified in paragraph (d)(3) of this section, all waters assigned any aquatic or human health use classifications in the Water Quality Control Plans for the various Basins of the State... are subject to the criteria in paragraph (d)(2) of this section, without exception." We recommend that EPA modify the applicability of the rule to reflect its full evaluation of those specific water bodies where each pollutant is found to be "adversely affecting water quality or the attainment of the designated water use or where the levels of toxic pollutants are at a level to warrant concern" (40 CFR section 131.11) (see comments on p. 1-2).

Further, we believe that, contrary to EPA's assertion on p. 42168 of the Preamble that the aquatic life criteria are applicable to all waters of the U.S., the freshwater aquatic life criteria may be inappropriate for application to streams and creeks that are dependent on flows for all or part of the year on discharges from anthropogenic sources, such as POTWs. We request that EPA establish separate, scientifically defensible aquatic life criteria for such water bodies. Several of our comments above have suggested ways that may be appropriate to modify certain types of criteria. Until this issue is addressed, we oppose the application of the criteria contained in the proposed CTR to effluent-dependent waters in the State of California.

Response to: CTR-035-038

See response to CTR-036-005.

Comment ID: CTR-040-018d
Comment Author: County of Sacramento Water Div
Document Type: Storm Water Auth.
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References: Letter CTR-040 incorporates by reference letter CTR-027
Attachments? Y
CROSS REFERENCES C-26;G-03; C-30

Comment: V. Recommendation: Delete all provisions in the Rule that preempt the States flexibility in permitting. The Rule provides specific direction on the adoption of averaging periods, low flow values, effluent limitations for criteria not being adopted as a part of the Rule, and that the aquatic life criteria be applied to all waters irrespective of designated use, etc..

* The Preamble and the Rule's economic analysis make a point that the State has considerable flexibility in establishing permit limitations. In making, that point, EPA implies that the State may implement the criteria in a manner that would have little or no adverse economic impact on dischargers.

* However, the Rule contains a number of implementation provisions that are not required under Section 303(c)(2)(B), but serve to preempt the State's flexibility. These provisions include, but are not necessarily limited to the adoption of averaging periods and low flow values, directives regarding the establishment of effluent limitations for criteria that are not being adopted as a part of the Rule, and application of the aquatic life criteria to all waters irrespective of the designated use.

* Not only does EPA not have a duty to adopt these provisions, but also the provisions are more restrictive than those required by the CWA or EPA regulations, They clearly restrict the State's flexibility. In fact, other states have adopted, and EPA has approved, implementation provisions (e.g., averaging periods and low flow values) which are less restrictive.

* For these reasons, EPA should remove all such implementation provisions from the Rule.

Response to: CTR-040-018d

See response to CTR-081-004b.

Comment ID: CTR-049-005
Comment Author: Watereuse Assoc. of California
Document Type: Trade Org./Assoc.
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES

Comment: With respect to other criteria proposed for adoption in the draft CTR, we recommend that USEPA:

3. Apply the aquatic life criteria to those waters identified in Regional Water Quality Control Plans ("Basin Plans") as having aquatic life uses, rather than to "all waters;" and

Response to: CTR-049-005

See response to CTR-081-004b.

Comment ID: CTR-056-013
Comment Author: East Bay Municipal Util. Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/22/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References: Letter CTR-056 incorporates by reference letter CTR-054
Attachments? N
CROSS REFERENCES

Comment: Third, regarding the criteria being proposed for adoption in the draft CTR, EBMUD recommends that EPA should:

* Apply aquatic life criteria to those waters identified in the Regional Water Quality Control Plans (i.e., Basin Plans) as having aquatic life uses, in lieu of adopting criteria for "all waters" of the State.

Response to: CTR-056-013

See response to CTR-081-004b.

Comment ID: CTR-066-012
Comment Author: Delta Diablo Sanitation Dist.
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES

Comment: The areas with which we find concerns and the requesed changes include the following:

* EPA should apply the aquatic life criteria to those waters identified in Regional Water Quality Control Plans ("Basin Plans") as having aquatic life uses, rather than to "all waters."

Response to: CTR-066-012

See response to CTR-081-004b.

Comment ID: CTR-081-004b
Comment Author: West County Agency
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/26/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES C-24d

Comment: * EPA should consider adopting separate, scientifically defensible and reasonably achievable aquatic life criteria for waters that are effluent-dependent for all or part of the year. In addition, the aquatic life criteria should be applied to those waters identified in the Basin Plans instead of "all waters."

Response to: CTR-081-004b

Today's rule applies to those navigable waters in California that do not have numeric criteria for priority toxic pollutants in place. This encompasses waters of the U.S. for which the State has duly adopted use

designations through its Regional Water Quality Control Plans, including those waters that are effluent and flow dependent streams. The criteria in this rule are based generally on EPA's national criteria guidance which are applicable and appropriate for all waters of the U.S. However, if a state finds that the ambient water quality criteria for a waterbody are inappropriate, then EPA's Water Quality Standards Regulation provide for a use attainability analysis and establishment of appropriate use designations.

For waters of the U.S. which have human health uses designated in the Regional Board's Basin Plans, aquatic life is present and fish or other aquatic organisms are being caught and consumed. Therefore aquatic life criteria and human health criteria based on the consumption of fish are applied to those waters except where the State has conducted and EPA has approved a use attainability analysis to remove or modify the aquatic life use or fish consumption use. Furthermore, for waters with a MUN designation, human health criteria that considers exposure from water and fish are applied to those waters. These approaches are consistent with EPA's Water Quality Standards Regulation (40 CFR Part 131) which requires States to include uses identified in Section 101(a) of the Clean Water Act, where attainable, and to establish criteria to protect those use designations.

Comment ID: CTR-082-006
Comment Author: City of Burbank
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES

Comment: The subject rule has a significant impact on our facility discharge and the citizens of the City. We therefore present the following comments for your consideration to re-open the comment period for this rule in order to facilitate a more complete review by public and in particular by those in the POTW community:

* USEPA should consider application of the aquatic criteria to be limited to those waters identified in the Regional Water Quality Control plans (Basin Plans) as having aquatic life uses rather than to "all waters."

Response to: CTR-082-006

See response to CTR-081-004b.

Comment ID: CTR-085-015
Comment Author: Camarillo Sanitary District
Document Type: Sewer Authority
State of Origin: CA
Represented Org:
Document Date: 09/24/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses

References:
Attachments? N
CROSS REFERENCES

Comment: The District supports the following positions of CASA and SCAP where changes need to be made in the proposed California Toxics Rule:

* The EPA should apply the aquatic life criteria to those waters identified in Regional Water Control Plans ("Basin Plans") as having aquatic life use, rather than to "all waters."

Response to: CTR-085-015

See response to CTR-081-004b.

Comment ID: CTR-096-007
Comment Author: City of Modesto
Document Type: Local Government
State of Origin: CA
Represented Org:
Document Date: 09/25/97
Subject Matter Code: C-24e SSC Desgntd/Beneficial Uses
References:
Attachments? N
CROSS REFERENCES

Comment: Thank you for the opportunity to comment on the proposed California Toxics Rule. The City's comments are related to five main concepts:

Specifically, the City submits the following comments:

D. EPA should apply the aquatic life criteria to those waters identified in Regional Water Quality Control Plans ("Basin Plans") as having aquatic life uses, rather than to "all waters".

Response to: CTR-096-007

See response to CTR-081-004b.
